

We Claim:

1. In a semiconductor chip having a substrate with an integrated circuit, a shielding device for the integrated circuit comprising:

a shield disposed on a side of the integrated circuit in the semiconductor chip facing the substrate, said shield at least one of optically and electrically shielding the integrated circuit.

2. The shielding device according to claim 1, wherein:

said substrate is an SOI substrate; and

said shield is an insulation layer of said substrate.

3. The shielding device according to claim 1, wherein said shield is at least one conductor disposed in the substrate on the side of the integrated circuit facing the substrate.

4. The shielding device according to claim 3, wherein:

the substrate is an SOI substrate having:

a bulk silicon layer;

a body silicon layer having at least one component formed therein; and

an insulator layer having a via;

said conductor is disposed in said bulk silicon layer; and

said via electrically connects said conductor to at least one of said body silicon layer and said component.

5. The shielding device according to claim 3, wherein said conductor is an element selected from the group consisting of a conductor surface, a conductor track, a conductor grid and a conductor double grid.

6. The shielding device according to claim 3, wherein said conductor is a doped region in the substrate.

7. In a semiconductor chip having a substrate with an integrated circuit, a shielding device for the integrated circuit comprising:

means for at least one of optical and electrical shielding disposed on a side of the integrated circuit in the semiconductor chip facing the substrate.

8. The shielding device according to claim 7, wherein:

said substrate is an SOI substrate; and

said shielding means is an insulation layer of said substrate.

9. The shielding device according to claim 7, wherein said shielding means is at least one conductor disposed in the substrate on the side of the integrated circuit facing the substrate.

10. The shielding device according to claim 9, wherein:

the substrate is an SOI substrate having:

a bulk silicon layer;

a body silicon layer having at least one component formed therein; and

an insulator layer having a via;

said conductor is disposed in said bulk silicon layer; and

said via electrically connects said conductor to at least one of said body silicon layer and said component.

11. The shielding device according to claim 9, wherein said conductor is an element selected from the group consisting of a conductor surface, a conductor track, a conductor grid and a conductor double grid.

12. The shielding device according to claim 9, wherein said conductor is a doped region in the substrate.